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13. ABSTRACT (Maximum 200 words) In 1992, in a move designed to better align the medical service with its Line of the Air Force counterparts, the Air Force Surgeon General directed an evaluation of a new structure that formalized the move toward service lines along with several other changes. The intent was to provide a clearer chain of command within the management team structure, while better focusing medical services on patient needs, and ultimately improve the ability to compete in a managed care environment. The objective of the reorganization was to align the medical organizational structure with that of other nonmedical Air Force organizations, and to make the delivery of health care services to the beneficiary population more efficient to effectively increase access, maintain high quality of care, and reduce the overall cost of delivering that care. This project examines the conversion to service line management and as such will incorporate experiences from professional literature and in-house initiatives. Specific areas of interest include the tools necessary for the service line manager to achieve success, strategies for hospitals or health systems to utilize when changing to service line, barriers that may impede the transition, and many of the advantages and disadvantages associated with service line management.	
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DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS 60TH MEDICAL GROUP (AMC)

3 Jul 95

MEMORANDUM FOR U.S. AMEDD Center and School  
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FROM: 60 MDG/SGA  
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SUBJECT: Endorsement to Graduate Management Project (GMP)

1. I strongly recommend approval of Captain Trezza's Graduate Management Project (GMP) entitled "An Implementation Plan Into Service Line Management for a Major Air Force Teaching Facility". This project represents the culmination of a year's worth of intensive and dedicated work that I feel meets the GMP requirements.
2. The work accomplished by Captain Trezza reflects a comprehensive review and thorough analysis of service line management and the impact this change in organizational philosophy will have on David Grant Medical Center. With the Air Force's move to the Objective Medical Group, this project was conducted at a very opportune time as we are in the middle of transitioning to a service line oriented organization. In the course of this project, Captain Trezza has clearly identified our transition plan and progress to date, carefully compared it to the wealth of experience and knowledge published in the literature, and provided our staff with recommendations that will be very helpful as we journey on into this new world of service line management.

P.E. JACOBSON, JR., Colonel, USAF, MSC  
Administrator

U.S. ARMY - BAYLOR UNIVERSITY GRADUATE PROGRAM  
IN HEALTH CARE ADMINISTRATION  
  
AN IMPLEMENTATION PLAN INTO  
SERVICE LINE MANAGEMENT FOR A MAJOR AIR FORCE  
TEACHING FACILITY

A GRADUATE MANAGEMENT PROJECT SUBMITTED TO  
THE FACULTY OF BAYLOR UNIVERSITY  
  
IN PARTIAL FULFILLMENT OF  
REQUIREMENTS FOR THE DEGREE OF  
MASTER OF HEALTH ADMINISTRATION

BY  
CAPTAIN ANTHONY A. TREZZA

FAIRFIELD, CALIFORNIA

JUNE 1995

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## ACKNOWLEDGMENTS

This product culminates the end of an extremely important chapter in both my career as well as my life, and I have many people to thank for helping me get there. At times I have been frustrated and sometimes floundering, for your help and guidance I thank you all very much.

First and foremost I relay my deep appreciation and admiration to Colonel Ed Jacobson for his overwhelming patience, timely guidance and valuable mentoring. I truly wonder if I would have been able to do it without you sir, thank you very much.

Certainly no less important is the support and friendship offered by Marge Tye and Betty Davis, Administrator and Associate Administrator's secretaries. Thank you both so much for your support throughout this sometimes troubled year, morally as well as day-to-day business.

I offer my sincere gratitude to Brigadier General Randolph and his enter David Grant Team for opening up your "home", departments, sections, and offices to me. I can't imagine ever feeling more welcome and part of a team as I did for my year with you all, Thank You very much. A special thanks to Connie Clarkston in the medical library for all your help in obtaining my research materials.

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assistance in helping me achieve this monumental milestone. Additional thanks goes out to my U.S. Army-Baylor classmates of '95. Many of you called at timely points to offer encouragement and support, thank you and best of luck in your post-Baylor careers.

Last of all but most importantly, I owe my family everything. To my wife Inge and my son Anthony, thank you for your love, support and especially your patience in seeing this through with me, I know I couldn't have done it without you, you too Bandit. The other part of my family is my mother and father. Thank you Sue for your faith in me and always being there, and thank you Colonel Tony Trezza Jr., for your persistent dogging and keeping my mind on the task at hand. Thank you all!

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## **ABSTRACT**

In 1992, in a move designed to better align the medical service with its Line of the Air Force counterparts, the Air Force Surgeon General directed an evaluation of a new structure that formalized the move toward service lines along with several other changes. The intent was to provide a clearer chain of command within the management team structure, while better focusing medical services on patient needs, and ultimately improve the ability to compete in a managed care environment. The objective of the reorganization was to align the medical organizational structure with that of other nonmedical Air Force organizations, and to make the delivery of health care services to the beneficiary population more efficient to effectively increase access, maintain high quality of care, and reduce the overall cost of delivering that care.

Product/service line management is an organizational strategy which focuses on specific products and markets, first utilized in the late 1920s by industry in order to effectively target specific markets in a more efficient manner. Similarly, hospitals or health systems can link like services along lines to more efficiently serve their customers.

By fully transitioning to service/product line management, the challenge facing David Grant Medical Center (DGMC), is how to do so without causing chaos within the organization that would disrupt services to the beneficiaries. This project

examines the conversion to service line management and as such will incorporate experiences from professional literature and in-house initiatives. Specific areas of interest include the tools necessary for the service line manager to achieve success, strategies for hospitals or health systems to utilize when changing to service line, barriers that may impede the transition, and many of the advantages and disadvantages associated with service line management.

## CHAPTER 1

### INTRODUCTION

### CONDITIONS WHICH PROMPTED THE STUDY

The Air Force Medical Service has traditionally organized its operations along functional lines with individual program managers, and directed operations through a central hierarchy. This not only created individual Corps-specific fiefdoms (i.e., nurses, physicians, administrators), but potentially contributed to inefficiencies in the delivery of patient care. In a typical Air Force medical treatment facility the Chief of the Medical Staff was responsible for all the professional and ancillary services, the Chief Nurse was in charge of most all nursing personnel within the facility, and the Administrator usually directed the support functions in the hospital. These support functions included the Resource Management Office which directed the finances and manpower, and the Patient Administration section. Another section with oversight by the Administrator is the Medical Readiness Office which coordinates disaster preparedness as well as contingency operations. The Administrator was also responsible for all of the Medical Logistics functions as well as facility management and information systems. David Grant Medical Center (DGMC) was no different. This professional stovepiping enforced the need to move to service line management, however, the driver is to reduce costs, and to do so management needs to include and influence the clinicians, the cost drivers, to be an active part of the solution. Effective administrative management alone cannot efficiently affect the cost of providing health care, it will be clinicians who alter their practice patterns and become actively involved in the cost-saving process.

DGMC is a 185 bed tertiary care facility with a regional referral responsibility. This medical center offers most major medical, surgical, and dental specialties with the exception of transplantation and cardiac surgery. Along with a very active clinical investigations department, DGMC has a large post graduate medical education program. In addition to eight medical residency programs, there are post graduate training programs in: 1) General Dentistry, 2) Oral and Maxillofacial Surgery, 3) Nurse Anesthetists, 4) Nurse Internship, 5) OB/GYN Nurse Practitioner, 6) Masters in Nursing, and 7) Healthcare Administration Residency. Annually at DGMC there are over 408,000 outpatient visits, 5,600 operative procedures, and 11,000 admissions. Two additional major factors affecting DGMC's daily operations are: 1) a joint venture with the Veterans Administration (VA) including construction of an additional 170 beds, and 2) hosting the Department of Defense's (DoD's) Region 10 Lead Agent for TRICARE regionalization of the health care delivery system. These two topics are beyond the realm of this research but warrant mention as they require considerable attention and consume resources.

Beginning in 1991, the Air Force and especially DGMC, actively embraced the principles of Total Quality Management (TQM). In 1991 when the Air Force was just beginning to pursue a TQM lifestyle, DGMC initiated a partnership with 3M Company to begin the building process of a TQM environment. That same year, the Executive Team created a Quality Council and established a full time Continuous Healthcare Improvement (CHI) office. From its inception, the CHI office has been on a fast-paced track with ongoing training for facilitators, department chiefs, newcomers, awareness classes and many others. Their commitment to DGMC is to facilitate the institutionalization of TQM throughout the facility. The CHI office is intimately involved with the day-to-day functions at DGMC from facilitating meetings and working groups to assisting the Executive Staff in charting a vision and mission for the future. The move to a TQM management philosophy actually accentuated the matrixing being accomplished through the medical center's existing committee system. The advent of TQM caused matrix

management to take on a larger and more clearly defined role in the day-to-day operations at DGMC. The staff was able to perpetuate the utility and power (with improved communication and coordination) derived through the committee system and apply the same matrixing style to Process Action Teams (PATs) and Process Improvement Teams (PITs).

In 1992, in a move designed to better align the medical service with its Line of the Air Force counterparts, the Air Force Surgeon General directed an evaluation of a new structure that formalized the move toward service lines along with several other changes. The intent was to provide a clearer chain of command within the management team structure, while better focusing medical services on patient needs, and ultimately improve the ability to compete in a managed care environment (Headquarters U.S. Air Force Surgeon's Office, 1994). Obviously this reorganization served a dual purpose: not only did it more closely align the medical service with the organizational patterns of its line counterparts, it also provided an additional impetus to operationally reengineer operations around service lines. The realignment is an effort to better deliver health care and provide support to its beneficiaries and staff. This latter claim is substantiated by the literature, clearly identifying an advantage of restructuring into service-line management for improved customer service. This is because the focus is on the customers-- the patients and physicians--and assuring they remain satisfied users of the medical facility (Anderson, 1991).

Following the guidance provided by Headquarters (HQ) Air Force and DGMC's regional command authority, DGMC reorganized its structure from the traditional hierarchical approach (figure 1) into a service-line style with an emphasis on matrix management (figure 2), on 30 September 1994. In figure 1, the professional staffing within the organization is stovepiped and very cumbersome. The Chief of Professional Services had oversight responsibility in all clinical areas, while the Chief Nurse was in control of all nursing support, and the Administrator had all the administrative support

areas mentioned earlier. Figure 3 shows the exploded service line style throughout the medical operations squadron. This displays how one individual has direct authority over all resources which used to be directed by three different executives; administrator, chief of professional services and chief nurse.

**Fig. 1. Traditional hierarchical command structure.**

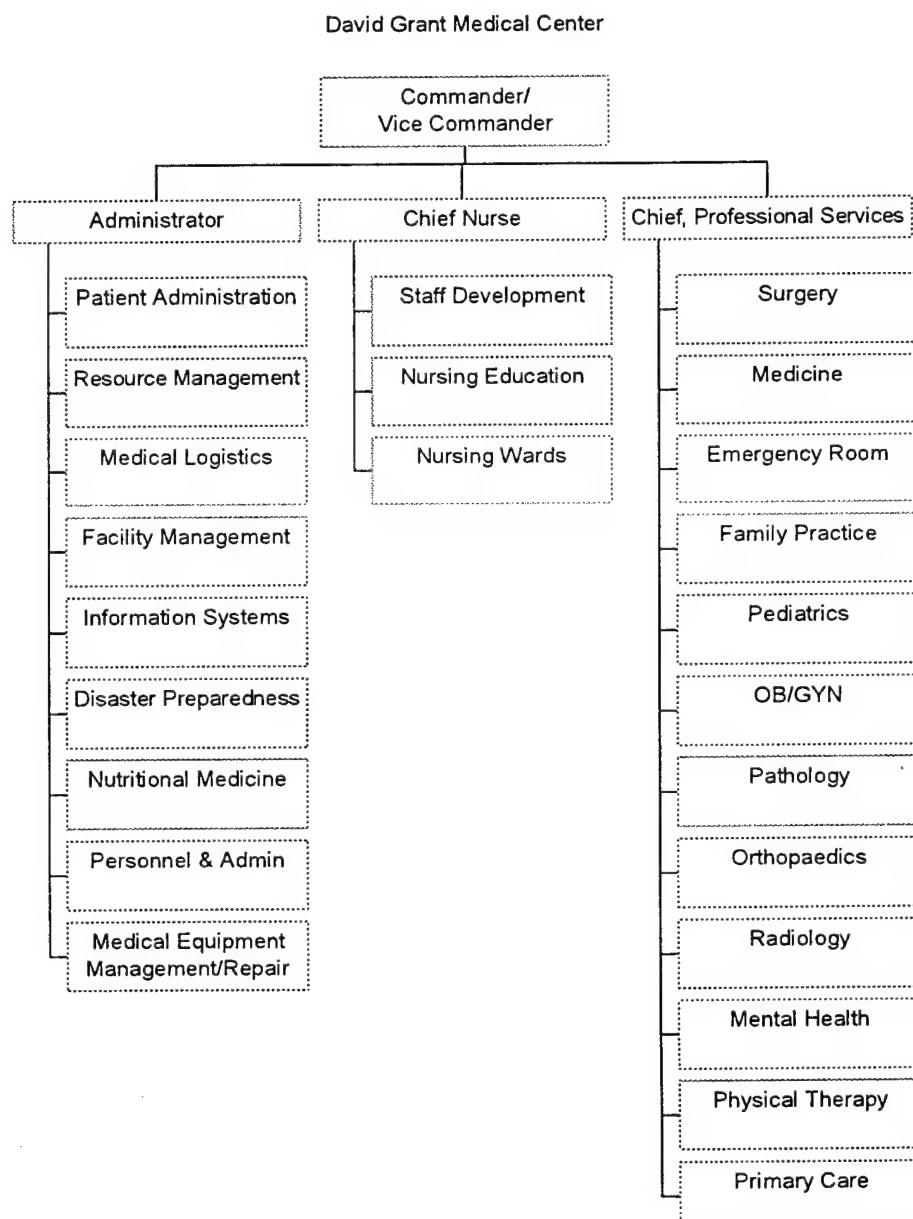


Fig. 2. Executive diagram of service line structure.

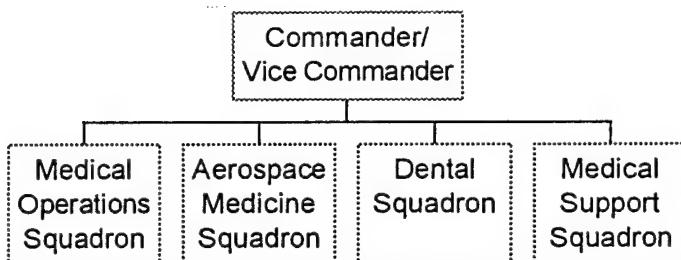
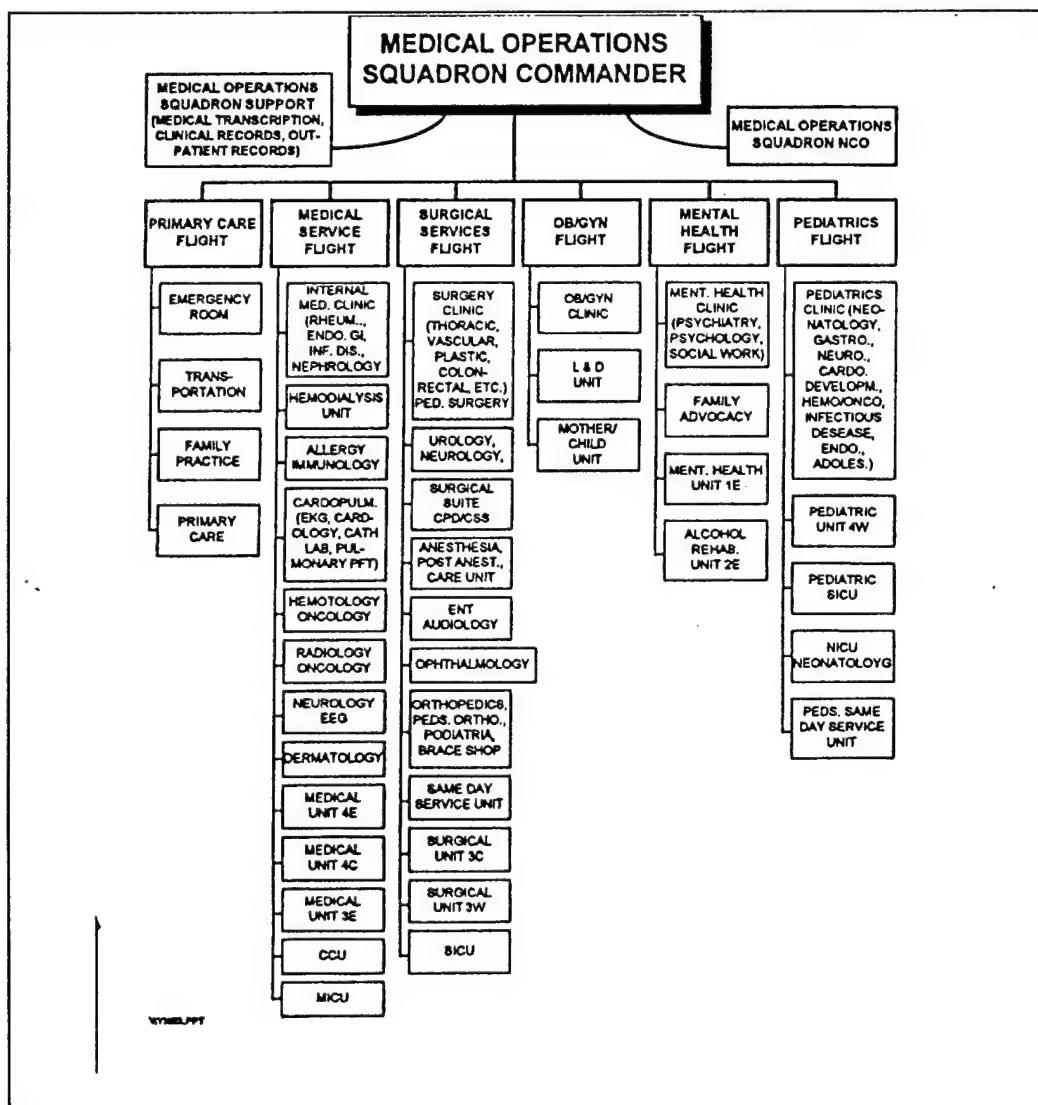


Fig. 3. New organizational structure into a service-line structure.



The new structure allows products or services to be coordinated and managed as separate business entities, encouraging smarter business decisions within the service line by putting the decision making authority at the lowest appropriate level (Flynn, 1991). Service-line management is designed to facilitate quicker decision making, increase productivity, and satisfy customer needs (Vosburgh, 1991), but it is certainly not an organizational structure without some drawbacks. Those drawbacks will also be examined to understand why other organizations experienced particular problems with service-line management, and avoid similar problems at DGMC. Along with specific problems identified by those organizations, this research will examine the strengths and weaknesses of having service lines.

By definition, product or service lines are thought of as specific program or service categories such as obstetrics, pediatrics, oncology or surgery (MacStravic, 1986). The breadth of a particular service line would be judged based on the different modes of service within that service line (e.g., a maternity product line includes high-risk, caesarean, home delivery, and prenatal or parenting classes).

DGMC is undergoing the transition from a stovepiped hierarchical organizational structure to a more responsive and efficient service line way of providing health care to its beneficiaries. Although formalized in October 1994, service line management has been in the makings for several years at DGMC as part of their continuous effort to improve efficiencies and service.

## STATEMENT OF THE PROBLEM

The opportunity presented to DGMC is how to best redesign its management and business philosophies and clinical practice patterns to support the move to a service-line environment, keeping the organization profitable, customer oriented, and decisive. Specifically, how DGMC should implement service-line management in a way that optimizes the quality of care, access to service, and cost efficiencies of service, by redeveloping its management and business philosophies and practices. The philosophies need to move in a direction that provides the service-line managers the tools to make those critical make or buy decisions emphasizing the managed care triangle: quality, cost, and access. Those tools are: 1) accurate and timely information, 2) the necessary resources (i.e., human, financial, and capital), and 3) the autonomy to act and make those educated and quality-driven business decisions. The emphasis throughout the implementation is to increase efficiency and reduce duplication and waste while improving customer satisfaction and maintaining high technical outcomes.

This project will examine the management changes from different perspectives and compare them to current and developing courses of action needed to tie together what has already been accomplished to what still needs to be performed. From that point, create a roadmap for DGMC to utilize in redesigning fundamental operations in the transition to a fully implemented service-line organization. As the organizational culture is being altered with this change, the challenge is much more complex than it may initially seem. For many years in the stovepipe era of managing a major health care facility, middle and executive level managers lived in a culture which propagated an organizational structure that was administratively oriented from a business perspective. This was

primarily because the clinicians wanted to practice medicine and did not want responsibility for administrative requirements. Now these walls must be removed, and the clinicians who control costs with their practice patterns must now become involved, all of which will affect how successful the new structure will be in the future. Whole sections and departments have been restructured and as such, staffing requirements will need to be reassessed as will the organizational, departmental, and service line budget and funding process. One absolutely essential area mentioned throughout the literature is for the service-line concept to be supported by a good automation package providing a decision support system (DSS) (Simpson and Clayton 1991; Simpson 1994; Nackel, Fenaroli, and George 1987). The need for a DSS which would provide DGMC the ability to perform some type of patient-level accounting and provide accurate information with which to accomplish make or buy decisions is noted; however, it is beyond the scope of this work.

The ability to make those make or buy decisions is paramount to surviving and is currently being done on a small scale in cooperation with a third party payor as Resource Sharing Agreements (DGMC Operating Instruction 168-14, 1994). Resource sharing is a formal written agreement between DGMC and its Health Maintenance Organization (HMO) contractor to share resources (i.e., personnel, equipment, and supplies), to reduce overall expenditures by maximizing use of the MTF. Finally, there must be executive commitment, and the service-line management teams must be educated throughout the hospital (Jones 1993; Cassetta 1987; Yano-Fong 1988).

## REVIEW OF THE LITERATURE

A literature review on service and product line management revealed extensive work in this area from case studies and articles. A brief history of product line management and the evolution of product line management in the health care industry is presented to help understand the need for change in the health care industry.

Product line management began in 1928 as large manufacturing companies adopted this business technique of redesigning the organizational structure so products (or services) can be coordinated and managed as separate business entities. They did so to control costs and compete successfully in their rapidly changing environment while producing a quality product in the most cost-effective manner (Flynn 1991; Yano-Fong 1988). The same can be said for the health care industry;

*“Change is the only constant in health care. Over the past few years, the array of rapid and complex changes in the delivery of health care services has put hospital organizations at high risk in that they may soon be out of context with other components of the industry. These rapid changes are challenging hospitals to reexamine both the scope of services and products and the structure for developing, marketing, and selling them. The development of product line management systems that link the delivery of quality clinical services with marketing and sales programs is a high priority (O’Malley, Cummings, and Serpico, 1991)”*

Some of the more common attributes that define and comprise product lines in the health care industry are:

- Be identifiable to the market
- Have an identifiable market

- Contribute significantly to hospital long-range planning and daily operations
- Be an identifiable diagnostic category
- Have unique or dedicated production facilities, staff, and technology
- Be recognized as a unique or special program
- Be an administratively manageable unit
- Have linkage to treatment patterns of medical staff (O'Malley, Cummings, and Serpico, 1991).

*"The ideal product line is cost effective, accommodates the coordination and expansion of services, promotes quality patient care, is easily implemented, and is endorsed by administration (Moye, 1991). "*

An important aspect of implementing a service-line philosophy is the increased need for matrixing (Allcorn, 1990). However, the addition of matrixed management to a health care facility can either be very welcome, particularly in a Total Quality Management environment, or it can fuel distrust and add to miscommunication through hazy lines of authority (Yano-Fong, 1988). Generally matrix management is portrayed in a positive light as a means to encourage team work, hasten decision-making, and enhance responsiveness to internal and external change (Allcorn, 1990). Reorganizing an entire medical center is, in and of itself, a drastic change, with or without a change to a matrixed style of management. Such change demands there be clear, open, and continuous communication before, during, and after the implementation phase.

Many of the articles focus on specific product line implementation, or departmental concerns with incorporating a service-line management philosophy (Moye 1991; MacStravic 1986). As with any new strategic course change, the philosophy behind the change must be sound and well thought out.

*"A product in health services can be thought of as a set of activities and experiences that is offered and consumed by an identifiable set of people in ways that are different from other sets. Emphasis may be on the production of the product-the internal activities required to deliver the service. Likewise, emphasis could be on the consumption of the product, the dynamics involved in bringing about the use of the service. A product line is a set of products that are related to each other by such factors as the type of need they satisfy, the way they are used, the customers who buy them, the mechanisms through which they are marketed, and even their price range. In effect, a product line is a set of products that when planned, managed, or marketed as a group yields some advantage over being treated as isolated individuals. In a hospital this can be a single visit to an individual provider, a meal, an operation, or an entire inpatient stay. Ultimately there are three basic elements in product-line administration: planning, management, and marketing. Product-line planning means examining, monitoring, and forecasting activities of the hospital in terms of its products and product lines as a basis for making decisions about what services to offer, how, and to whom (MacStravic 1986)."*

Similarly with any sound philosophy, there must be a strategic focus or outcome tied to the philosophy. Many times the strategy is as simple as increasing efficiency and expanding product lines along strong programs and paring back on weaker programs while increasingly looking at their customers needs and desires (Weber, 1991). This is in fact complimented by Daniel McCormick in his work on meeting strategic objectives through the development of service-line management. McCormick emphasizes the need to build a strategic plan and perform a thorough market analysis.

This detailed market analysis is a five step process that allows the financial manager as well as the product line manager to develop the line to best meet the strategic direction of the facility. Those five steps are: 1) develop product-specific

financial statements, 2) perform a thorough demographic analysis by product line looking at

- patient age
- ZIP code of patient origin
- insurance classification
- market share
- state health plans
- disease incidence levels, and
- payment levels

3) perform a competitive assessment looking at the strengths of competing facilities, 4) realize the sources of a hospital's patient referral pattern, and 5) prepare the actual marketing plan (McCormick, 1991). Carol Moye used a very similar description in defining the three objectives of the product line manager as: 1) develop strategies to continually improve and market the product, 2) develop the financial and operational plan for the product, and 3) monitor the implementation of the plan and evaluate results, initiating changes as necessary. To do so, target markets must be identified while planning and developing product lines, taking into consideration demographics like population density, social and psychological factors, and income levels (Moye, 1991).

For all the top quality market analysis' and developed strategies, there can still be a problem of missed opportunities or failed efforts; the key to igniting the data and demographics into results is individual accountability by the service line manager, for

product decisions and financial management of the particular line (Plantenberg, 1988).

At DGMC the position of accountability and authority will be the department (flight) chief. This actually is a keynote issue in any organization developing service lines or expanding existing service lines (Studnicki 1991; Alexander and Robinson 1991; and Fottler and Repasky 1988).

*"Perhaps the most difficult issue emerging is the appropriate level of authority granted to the product line executive. In some cases the manager has a staff position and coordinates, counsels, organizes, and advises but holds little or no decision-making authority. At the other extreme (more typical of their commercial counterparts), product line executives hold a line position with full authority over all the operating units necessary to support the service. The correct level of authority for the product line manager is likely to be specific to each hospital and based on factors unique to each environment (Studnicki, 1991)."*

Carol Moye says much the same thing when she details how the product line manager must consider labor, materials, equipment, and overhead, while the effective product line manager has unlimited influence vertically and horizontally within the organization (Moye, 1991). In a survey by Fottler and Repasky in 1988, they conclude that all product line managers must be skilled in five critical areas: 1) market analysis, 2) goal-setting, 3) planning and budgeting, 4) coordination of work, and 5) control. The pivotal skill here has got to be control. Every mid-level manager should be adequately prepared in the other four skills, however, it is control and the ability to use control to further the profitability of the unit and the organization that will determine the success of the product line manager.

Part of the authority and responsibility delegated to the product line manager is to ensure there remains a synonymous strategic focus with that of the organization. Understanding that even in the most decentralized organizations, the product line

managers will still need to keep focused on the overall organizational strategic plan. Therefore, despite being responsible for deployment of all human, physical, and financial assets pertaining to a product line, the manager must keep the organizational strategic plan and objectives in mind when developing their own plans and budgets (Fottler and Repasky, 1988).

Several authors examined specific challenges within a department (Michael et al. 1991; Pierog 1991) while others addressed the organizational impact of a singular service-line development within the organization (Kralovec, Huttner, and Dixon 1991; MacStravic 1986). One of those immediate challenges of implementing product-line management in a service environment, is getting past the product-focused language and acceptance by the staff.

*"The traditional business definition of product can be easily translated into 'hospitalese' as the provision of services by health care professionals in an efficient and effective manner with an expected outcome. This can facilitate the acceptance and expectations of the hospital as an industry and bring it out of its primitive, inefficient, cottage-industry attitude (Pierog 1991)."*

This ties directly into how the product/service lines are defined, or as mentioned earlier in the chapter, the attributes which define the service line. The ability to easily define the service lines along DRGs, or along disease and illness lines will accelerate the health care profession's ability to better understand and identify with this product-focused language.

Beyond the challenge of convincing the medical personnel that the vernacular of product line management is associated with providing quality health care, other

potential challenges do exist. One of those challenges is the painless handling of the actual transition to a new organizational style.

*"Hospitals traditionally have many layers of management. It can take considerable time to effectively shift to an alternate model of management. During the transition phase, the lines of authority may be unclear and frustrating to functional department directors. Some may fear losing power and not having input into the process. When changes are presented too quickly or if the process is not explained completely, functional department directors and hospital administrative staff can become threatened and uncooperative (Michael et. al., 1991)."*

The change must be accomplished slowly and discussed openly to the entire staff of the facility. Distributing literature of success stories from other facilities that have transitioned to service line management is one way to begin working with the staff. Another answer might be to send some of the key transition players (middle managers, department chiefs, or service line managers), to an health system or hospital that is enjoying a successful experience with service line management. There are certainly many more ways to ease the fear of change, however, the most important aspect for executive leadership, is to remember that the fear and apprehension is out there.

In any new venture, the organization must remain focused on all of its stakeholders, and in healthcare, a major stakeholder is the surrounding community. Hospitals have a greater responsibility to the community than do non-healthcare related businesses. This greater responsibility and accountability is what makes creating a balance between sound business practices and community service so important. In a strict business sense, if a product line is not turning a profit, the line may be discontinued, however, in healthcare that alternative may not exist. Many of the product lines are inter-related and closing one may very well adversely affect

others, or it may be a product line in which the community has become dependent upon due to its rural location or inner city competition (Michael et. al., 1991).

Graduate Medical Education is another source of concern if an organization were to consider creating or closing a product line. The service in question may very well be necessary to keep a particular residency or internship program functional at the hospital and will require the line to be operated at a loss for the betterment of the whole organization. A similar situation exists at DGMC. The neonatal intensive care unit (NICU) has not been operating at a great enough capacity to be "profitable", however, if even after a prolonged trend developed, closing the service would not truly be a viable option. Several of the residencies rely on the existence of this unit; obstetrics, pediatrics, and family practice to name a few.

A few additional barriers to product line management may include:

- resistance to change and complacency on the part of the administrative and medical staffs
- additional operating expenses required to support another administrative level, and
- difficulty in developing information and cost-reporting systems that can support product line activity (Kerfoot 1993; Studnicki 1991).

There are a few sources that take a look at hospitals reorganized completely under a service-line framework and the strategies and milestones used to accomplish this task (Vosburgh 1991; Vaughn 1990). Dorothy Cassetta lists ten steps to establishing product line management:

1. Obtain CEO and senior management commitment.

2. Build a solid marketing information system.
3. Identify product lines, making sure you build on your organizational strengths either internally or externally.
4. Obtain organizational commitment to a consumer orientation.
5. Hire or identify qualified product line managers.
6. Educate departmental managers and medical staff on product line management and the duties and responsibilities of the product line managers.
7. Develop a small task force or committee (composed of operational, financial and marketing individuals) to assist the product line manager.
8. Develop product line business plans and establish goals, objectives, and evaluation procedures.
9. Set up quarterly meetings to report results.
10. Develop a compensation plan for the product line manager and the task force.

These steps provide a guideline to the activities that can be followed in a transitional period but do not offer a month by month calendar to follow. As in any endeavor involving a major change, the slow and methodical approach, over a year or two, is the most popular direction (Bowers and Taylor, 1990). An organization should give itself two to five years to implement product line management. Teamwork must be fostered, and implementation of one or two product lines most likely to be successful is a recommended way to proceed (Cassetta, 1987).

When realigning its delivery of health care, Hoag Memorial Hospital established as its goal to "construct an organizational structure that was responsive to

market needs; one that could speed decision making, increase productivity and satisfy consumer needs", realizing for them to succeed, they would have to compete on the basis of quality and cost (Vosburgh, 1991). The executive team at Memorial Medical Center of Jacksonville (MMCJ) realized much the same thing when they strategized on improving its competitive position in the local healthcare market. Their nine step process was: 1) select the product lines, 2) recognize obstacles, 3) restructure the organization, 4) select a team, 5) realize the evolution of change, 6) define the product, 7) define the mission and vision, 8) continuously seek opportunities for improvement, and 9) define the monitors for measuring success (Jones, 1993).

Selecting the product lines came after MMCJ studied product line management and found it to be an effective strategy to control costs by treating specific services as separate business entities. By recognizing obstacles, MMCJ recognized that their current system was inflexible and inefficient resulting in a lack of coordination and duplication of services. In changing the organizational structure, they moved from a traditional bureaucratic system to one where the decision-making process was decentralized to managers and employees. Some of the changes identified by MMCJ were the reorganization of traditional reporting structures, inter-departmental communication and problem solving and, sharing of resources across traditional departmental lines. After carefully defining their product lines and ensuring the respective vision and mission statements were aligned with the organization, they planned for continuous change and measurements in which to monitor success (Jones, 1993).

A multi-hospital corporation provides another example of an organization changing its culture and turning converting to product line management. Driven by the competitive environment, this corporation decided in the late 80s after a year-long study, to reorganize its entire operations along product line management. The corporate board felt product line management would allow their system to sustain competitive advantage, to retain and enhance market share and to position the corporation appropriately in the marketplace (Vaughn, 1990). Table 1 reflects the workplan developed to chart their progress.

These milestones in Table 1 reflect many of the identical attributes and methods already mentioned from other experiences. Commonalities include evaluating approaches outside of the organization, through literature as well as personal visits, and to clearly define the vocabulary to be used in the conversion, for everyone's benefit. Many of the ideas here incorporate a teamwork philosophy very similar to that currently going on at DGMC and mentioned elsewhere in the literature.

**TABLE 1**

**MILESTONES USED BY A MULTI-HOSPITAL SYSTEM IN  
CONVERTING TO PRODUCT LINE MANAGEMENT**

1. Develop a conceptual definition of PLM and evaluate existing PLM approaches within and outside the corporation
  - a. Define PLM and develop a glossary of terms
  - b. Perform an internal audit of corporate PLM efforts
  - c. Visit organizations with active PLM programs
  - d. Review literature
2. Assess the desirability of implementing PLM for multiple programs within the corporation.
  - a. Develop criteria for evaluating and selecting product lines
  - b. Identify potential contribution to the achievement of corporate goals
  - c. Determine risk and success factors and evaluate possibilities for success
  - d. Review possible organizational structures and methodologies for implementation
3. Evaluate application of specific product characteristics and market objectives to various forms of PLM and identify system-wide priorities.
  - a. Develop a comprehensive list of potential product lines and profile a "short-list"
  - b. Review options in context of factors set forth above
  - c. Outline product-specific recommendations for possible implementation
4. Recommend a decision-making process for PLM that ensured integration with institutional, regional, divisional and corporate processes.
  - a. Develop general guidelines for program implementation
  - b. Formulate a long- and short-term strategy for recommendation
  - c. Construct a decision tree which insured integration with the other major divisions and companies of the parent corporation
  - d. Provide consistent definitions because the concept was so new to healthcare and the corporation
    - e. Define the PLM organization, roles, and functions
    - f. Develop a presentation for the appropriate audiences and decision-makers

Reprinted from Vaughn, 1990

When properly implemented with the appropriate components, the benefits to service line management abound. Some benefits discussed include: 1) decentralized decision-making to include being accountable for decisions made as well as the day-to-day operations, 2) it facilitates coordination among various departments and functions, 3) it stimulates market segmentation in which specific client groups are targeted, 4) it strengthens the relationship between strategy development and the operating and capital budgets, 5) it promotes rigorous evaluation of new and exciting programs, 6) a quicker response to the changing environment, 7) increase productivity, and 8) satisfy customer needs (Studnicki 1991; Anderson 1991; Vosburgh 1991; Yano-Fong 1988).

The literature has provided DGMC a tremendous lessons learned experience without being subject to any of the potential misfortunes. This literature review reveals DGMC is progressing well in its transition and at the right pace. From this review DGMC now has a model of a successful implementation plan from another facility, milestones used, and a timeline productively put to use by another facility. Many critical issues have been examined to further assist DGMC in its journey: 1) matrixing, 2) executive and management philosophies, 3) maintaining a shared strategic focus, plan and vision for the organization and its service lines, 4) the importance of educating the staff on service line management as well as how to use the different management tools available, and most importantly, 5) how to achieve a successful transition to service line management and the skills needed to manage a service line.

## **PURPOSE STATEMENT**

The purpose for this graduate management project is to develop a strategy for DGMC to utilize in its ongoing transition to service-line management. This strategy should optimize technical outcomes, meet the expectations of the beneficiary population and hospital staff, and be cost effective. This plan will be based on an analysis of recent integration to service-lines by other health care facilities. Substantial structural reorganization as well as restructuring individual product/service lines will be explored. The project will have an additional focus on the reengineering of current management and business philosophies, as well as training requirements to meet the changes. This work will provide the individual service-line managers a guide to make business decisions based on factual data that keeps the facility profitable, customer oriented, and along the strategic objectives of the organization. This study will incorporate research in organizational behavior and corporate change as well as productivity theories in the health care field. The results of this study will provide the Executive Staff of the medical center and newly configured squadrons, a reference source to guide them throughout the move to service-line management and will be beneficial to all of DGMC's customers, staff and beneficiaries alike.

## **CHAPTER 2**

### **METHODS AND PROCEDURES**

The methodology for this project will include: (1) review of the literature, and (2) collaborative work with the team of functional area experts in the support sections, charting the initial path for the service line managers. Professional journals available today are replete with information and recommendations on product and service-line management. These references provide founding principles and test site experiences that can make integrated service-line management more effective at DGMC. The medical center has already embraced the TQM culture and management styles, and has realigned under a new organizational structure. As such, the crux of the study will be on the management aspects of how other medical facilities have successfully established a healthy and viable service-line department, a product line, or an entire organization, and apply those experiences to DGMC. This will include trials and tribulations experienced at DGMC in its early attempts with TQM, matrix management, and early work on service lines.

The medical center already has a portion of the staff working on service-line issues for the transition. Resource Cross-Utilization Teams (ReCUTs) were developed to get key personnel in the various service lines and the program managers from the support functions together for face-to-face communication. The teams have been examining matrixing issues as well as manpower and budgeting, and cost patterns of supplies and equipment within several of the individual service lines. The composition of these teams is reflected in Table 1.

TABLE 2

**MEMBERSHIP OF RESOURCE CROSS-UTILIZATION TEAMS (ReCUTS) AT  
DAVID GRANT MEDICAL CENTER**

ReCUT Team	
Clinical Membership	Administrative Membership
Department Chairperson	Resource Management Representative
Nurse Manager	Logistics Representative
Superintendent for the service line	Managed Care Office Representative
Cost Center Manager	Medical Information Systems Rep
Supply and Equipment Custodian(s)	Facility Management Representative

The matrixed ReCUTs developed objectives that supported both the overall organization as well as the concept of service line management and are shown in Table 2. The objectives were developed to best reflect the future direction of the teams in support of the transition to service line management.

A part of this research project will be to participate with an existing team of the DGMC staff to work on issues already identified, and develop some proposals for the respective service line implementation.

TABLE 3

## ReCUTS OBJECTIVES

- Provide specific ongoing support teams for major departments
- Bring process owners together with specific resource program managers
- Enhance and formalize support/memorandums of understandings previously provided through cost center managers and supply and equipment custodians
- Identify department needs and priorities
- Identify resources currently available to meet department needs
- Develop plans to manage the budget
- Project and prioritize future needs
- Identify problem areas and develop initiatives to correct and improve
- Seek out better and more efficient ways of doing business
- Explore various options to meet needs and select best managed care option i.e., resource sharing, MOUs, management efficiencies, VA sharing
- Identify potential areas where services could be sold to outside agencies
- Expand agenda to include manpower, systems, facilities, and other support areas as necessary
- Continuously improve customer services

## CHAPTER 3

### RESULTS

DGMC is well on its way to operating in a service line mode. They are currently doing so utilizing many of the same principles as described in the literature. Matrixing many of the support functions, incorporating the service lines into the organization's strategic focus, and doing so with a systematic approach that both embraces and educates the physicians while they become fully participative members in the service line activation. This has been accomplished primarily through the use of the ReCUTs planning and development, with the support from the executive staff of the medical center.

These Resource Cross-Utilization Teams were initially brought on-line as the beginning of product line management as well as a means to improve efficiencies and save money during financially austere times with actual dollar shortfalls, and with a capitated budget on the horizon. As mentioned earlier, they were designed to provide the department chief and selected others an opportunity to discuss ideas or concerns directly with representatives from the budget, managed care, logistics, facilities, and systems offices. The ReCUTs efforts were a successful beginning in getting the

clinical staff together with the support personnel to look at specific "lines" of health care being delivered. From the ReCUTs work, DGMC has identified five service lines in which to begin their journey into service line management. Those five are: 1) pediatrics/maternal care, 2) primary care/family practice, 3) mental health, 4) medicine, and 5) surgery. Of these five, surgery was the first service to begin work with a product line manager, albeit on a part-time basis.

The initial success in the surgery line can be attributed to two things. First is the groundwork laid by the ReCUTs team-members. The entire team of clinical and administrative personnel cooperated and worked excellently well together in a venture very strange to them all. The significant accomplishments this team made in establishing the forum and rapport for each side of the healthcare team to participate, provided for a pretty smooth transition into a service line mode of thinking. Secondly, the trust and cooperation the chief of the Department of Surgery and the healthcare Administrator showed each other when they started down the uncharted path of service line management. This required each of these professionals to learn the other's language, and for the healthcare Administrator, to work through a common perception physicians have of administrators, which is a lack of clinical understanding or know-how. In this case, the Administrator went to great lengths to understand exactly what went on in the surgery department. He did this by shadowing surgical teams, learning the operating room schedule, and talking with the various surgical teams about their needs and expectations from the organization. Similarly, the Administrator explained some of the mysteries of administration to the physicians: how the budget process

works, the make or buy decision process referred to as Business Case Analysis (BCA), systems support, and space utilization. Another tremendous benefit the Administrator brings as the service line manager is the knowledge and experience with the available management reports concerning beneficiary demographics, productivity, and trends.

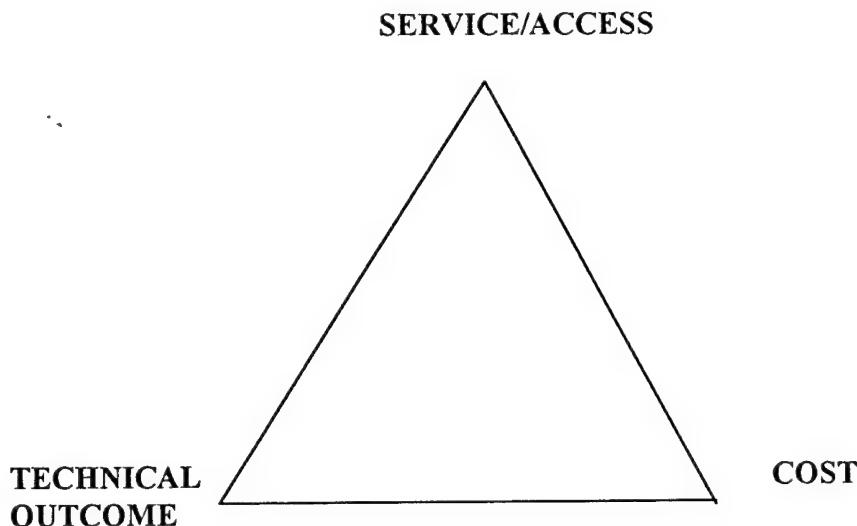
The results obtained from research into the literature revealed many of the same traits and qualities DGMC is already implementing or preparing to implement, in bringing service line management on-line. This begins with clearly defining the position and the role the service line manager will be filling, and exactly how much authority and autonomy the position will hold. Quite similarly, the mission and the vision of the service line need to be clearly defined, presumably to coincide with the mission and vision of the overall organization. As in any new endeavor, there must be total commitment to service line management, by the executive staff, the physicians, middle managers and most importantly, the service line manager. This all culminates in a clearly defined strategic plan that supports the service lines as well as guiding them with a continuous focus.

A predominant theme throughout the literature is the necessity for the facility to incorporate service line management into the corporate strategic plan and maintain that strategic focus. That is happening real-time at DGMC. DGMC is utilizing what they refer to as the Strategic Planning and Analysis Group (SPAG) to provide some of the direction in matrixing the support functions and guidance to the service line managers while ensuring the strategic focus of the organization is being maintained. They are also developing the ever-critical information piece of the service line

requirements, the necessary management data and analysis needed to make their business case decisions. This includes following the Business Plan of the institution and decisions that may impact the organization such as adding or deleting services via a make or buy decision and creating centers of excellence or similar internal structures

The drive toward service lines began as a way to improve efficiencies within the system thereby allowing better access to the facility while reducing cost and maintaining high quality of care. This is identified with the DGMC quality triangle which will continuously be the goal of the service lines as well as the predominant theme of the organization. A large part of DGMC's efforts in continuous improvement is in accordance with this triangle; continue to improve service capability (access), with continued high quality technical outcomes, while always looking to achieve the best unit cost.

Fig. 4. DGMC'S quality triangle.



DGMC is making significant strides in optimizing its quality triangle with a strong business plan, aggressive utilization management, and now a dedicated move to service line management. The move to service line management will now enable the facility as a whole, to realize the benefit of the service lines as they become more educated on the data available and resultant make or buy decisions.

## CHAPTER 4

### DISCUSSION

The drive towards service (product) line management at DGMC is bringing together two very important components of the healthcare puzzle, the medical staff and the administrative staff with the management data and reports, and a common objective of becoming more effective and efficient by balancing the quality triangle. Education is the cornerstone of this venture, primarily to the physician staff as they control lengths of stay, ancillary tests, and write the prescriptions. This will assist the product line manager when the time comes to be able to effectively cross organizational lines and work with the provider staff newly armed with the managerial skills to make smart, empowered decisions; the goal is education and empowerment.

Referring back to Dorothy Cassetta's Steps to Establishing Product Line Management, DGMC appears to be on the right track. Cassetta developed these steps with a two to five year implementation plan in mind, and DGMC is approximately one year into its implementation. DGMC has enjoyed senior management commitment from the outset of its journey into product line management. The Commander, CEO and entire executive staff have set the direction for and fully supported this

organizational restructuring. The initial service lines have been identified and the organization is actively in search of service line managers to fill those positions. The position description is quite detailed and aligns with the responsibilities and skills as detailed in the literature. This position description is included as the Appendix. The hospital's ReCUTs work has been utilized effectively as a "small task force" as described by Cassetta, in assisting the department chiefs and initializing much of the ground work to be done by the incoming service line managers. There are still three areas of large responsibility yet to be accomplished at DGMC: 1) the education of departmental managers and medical staff on service line management, 2) the development of service line business plans with respective goals, objectives, mission, vision, and evaluation procedures, and 3) the effective use of a key management tool, data analysis.

The education of the medical staff is the linchpin to a successful service line philosophy. As has been mentioned several times thus far, the physicians directly affect the organization's costs through ancillary test requests, prescriptions written, and out-of-plan referrals made. To pursue service line management without the commitment of an educated provider staff would be institutional suicide. Change among physicians is best fostered by other physicians. Aside from the basic fundamentals of product line management which can be educated throughout the facility with informative newsletters and forums with the executive team, ReCUTs, or Strategic Planning and Analysis Group (SPAG) team members; the medical staff should receive a case presentation. This case presentation should focus on the positive

outcomes and benefits of service line management and be presented by a physician who has had a positive experience with this organizational structure and can promote a successful service line venture.

It is vitally important for the service lines to align themselves with the overall strategic plan and avoid suboptimizing.

*"Product line management must be based on the chief executive officer's and senior management's establishment of clear corporate values, objectives and a mission for the organization. All planning on the product service line level must stem from the corporate goals and objectives. Product line managers must understand, support and implement all of the corporation's goals and objectives, not just the goals of the single product or service (Cassetta, 1987)."*

DGMC has proven itself to be on the leading edge of health care organizations by producing a high quality strategic plan with complimentary mission and vision statements. Now the same education and effort need to be directed at the staff of each service line. This is critical for DGMC to be proactive in ensuring each service line understands the strategic focus of the institution and develops their respective strategic plans, mission and vision statements to support and compliment that of the facility. Proliferation of the CHI office and its responsibilities into the service lines as they begin to develop their strategic direction, is an ideal way for this to occur. The staff of the CHI office has participated on the organizational level and assisted in producing the quality results DGMC has attained.

With a concentrated focus on educating the provider and support staff on service line management and its advantages in health care delivery, DGMC should have little trouble fully implementing service line management. Once the service lines are functioning with a manager to support the department chief, and individual mission

and vision statements are developed, it would be beneficial to the organization for the executive team to reiterate the importance of the organization's strategic focus and the need for the service lines to compliment one another, not compete. Given the team philosophy encouraged by the executive staff of the medical center on a daily basis, DGMC should have no trouble proliferating this attitude throughout its service lines.

## CHAPTER 5

### CONCLUSIONS AND RECOMMENDATIONS

The move by the United States Air Force Medical Service (AFMS) into the Objective Medical Group (OMG) formalized service line management, and was rapidly accomplished with specific goals in mind.

"To better focus care services on patient needs, provide a better management framework for our MTFs [medical treatment facilities], and ultimately improve our ability to compete in a managed care environment. The OMG was the fundamental change the AFMS needed in order to effectively compete in the rapidly changing world of health care, anticipate new requirements, and structure the MTF to accomplish its mission (H.Q. U.S. Air Force Surgeon's Office, 1995)."

In an address at the American College of Healthcare Executives on Federal Day's Air Force Session, the Air Force Surgeon General, Lt. General Edgar R. Anderson told the group of Air Force healthcare administrators how the AFMS did a dismal job of marketing the move to service line management due to the rapid activation of the OMG. After a test phase with negative results, some minor refinements were made and the OMG was implemented without being tested again (Anderson, 1995).

The formal reorganization created by the implementation of the OMG has indeed caused some institutional problems commonly associated with change, however, these problems do not seem to have any affect on the proliferation of service line management at DGMC. DGMC has absolutely been proactive in its

implementation of service line management. This is accentuated by the level of commitment displayed daily by the executive staff on down through the middle managers. The lead work into the service lines accomplished by the ReCUTs has been instrumental in laying the foundation of good faith and trust between the physicians and administrative side of the facility and must absolutely continue as the service lines expand. Similarly, the work of the SPAG is just as essential in ensuring the strategic focus of the service lines remains in line with the organization's. The SPAG needs to become more involved as the service lines begin coming on-line and proactively provide some of the data analysis needed by the fledgling units.

Following the spirit of TQM, when the service lines are fully functioning they need to ensure there are established measures of success for that service line manager to monitor the success or shortcomings of the service line. Many of those recommended are already in use at DGMC, patient satisfaction surveys, patient waiting times (i.e., to get an appointment, for their appointment, ancillary services), analysis of physician profiles (i.e., utilization and referral patterns), analysis of procedural volume changes, and revenue and expense reports. Additional concerns for the service line managers will be cost-avoidance, similar to what they track right now using resource sharing agreements. Cost-avoidance will be useful when tracking costs of referrals out of the facility due to a shortage of personnel, equipment, space or money, and after a cost-benefit analysis determine if those costs could be avoided if the business was brought back into the facility under some type of contract or similar

agreement. This becomes all the more important with a capitation-based resource allocation scheme for future funds dispersal from headquarters.

Captain Michael Carlton described in his Graduate Management Project the need for lateral lines of communication in some areas of the facility in a managed care environment (Carlton, 1992). This remains just as true in a matrixed service line environment. It is vitally important however, that matrixed manpower fully understand their role in the organization and be clearly defined in the strategic plan detailing areas that may have dual lines of authority. Matrixing can be very beneficial when quality decision-making is decentralized and resultant responsiveness of the organization is profitable, however if it is not clearly defined, it could develop into DGMC's achilles heel.

An area that could easily develop some concern, is the relationship the service line manager will have with the Executive staff and the SPAG. This truly boils down to there simply just being a clearly defined role for that line manager and their responsibilities to the other two entities. The ultimate goal for DGMC should be to construct an organizational structure that is responsive to the market needs, can speed decision-making, increase productivity and satisfy all of its customers' needs (Vosburgh, 1991). If DGMC can accomplish this by making smart "make or buy" decisions with educated and empowered people, it will remain on the leading edge of military medicine as well as the health care industry as a whole. In conclusion, MacStravic describes it best: "An effective product-line management approach would

normally be reflected in quality, productivity, and efficiency in the delivery of specific services (MacStavic, 1986)." The DGMC quality triangle accomplishes this.

## APPENDIX

### PURPOSE OF POSITION AND ORGANIZATIONAL LOCATION:

The primary purpose of this position is to provide a variety of analytical, evaluative, advisory, planning and coordinating services to the Chief of the Medical Services Flight. Primary focus is on quality improvement, quality assurance, risk management. The organizational location of this position is Travis AFB, CA (AMC), 60 AMW, 60 MDG, 60 MDOS, Medical Services Flight.

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### ORGANIZATIONAL GOALS OR OBJECTIVES:

The organizational goals or objectives of this position are to support the 60 MDG mission by providing a variety of analytical and operational support which maximizes the efficiency and effectiveness of the flight.

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**DUTY 1:** Organizes and coordinates the Medical Services Flight Quality Improvement (QI)/Quality Assurance (QA)/Risk Management (RM) Programs. Performs analyses and provides administrative support for Continuous Healthcare Improvement (CHI) within the Flight. Critical.

### STANDARDS:

- A. Works closely with CHI/QA/QI coordinators, element/service chiefs, and the Flight Chief to ensure compliance with all Air Force and Joint Commission on Accreditation of Health Care Organizations (JCAHO) requirements. Monitors indicators of quality and appropriateness of patient care; seeks to reduce risks; recommends improvement opportunities/options.
- B. Ensures all aspects of the program, including outcomes analysis, findings and trends analysis, and medical records review (to include all inpatient and outpatient tissue and non-tissue bearing procedures) are appropriately reviewed against established criteria and indicators of medical appropriateness. Monitors clinical indicators, and tracks both the occurrence screening process and external peer review, to detect adverse findings and/or trends; makes suggestions. Participates in, and monitors, outcomes studies. Performs reviews and analyses, and produces metrics, reports, data, and related charts for the Flight Chief.
- C. Acts as consultant to internal medicine and sub-speciality (neurology, dermatology, allergy) providers and professional staff with regard to CHI/QA/QI/RM issues, and QA/QI aspects of medical records management.
- D. Manages Provider Activities Files (PAFs) for each provider within the flight; analyzes and monitors using various data systems. PAFs are a summary of professional activities of each provider. Personally ensures the safety and confidentiality of PAFs, as these files contain sensitive and privileged information, and are used exclusively by the Flight Chief

to track the credentialing status of each provider. Advises and assists Flight Chief on administrative matters pertaining to credentials.

E. Serves as a member of the Flight QA/QI Committee. In the absence of the Flight Chief and medicine QI coordinator, serves as chairperson.

KSA: 1,2,3,4,5,7

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DUTY 2: Administratively plans for future Medical Services Flight functions and/or processes and the integration of new equipment and programs in health care information management. Critical.

STANDARDS:

- A. Gathers necessary information and formulates plans. Coordinates with appropriate personnel within the flight, and with those in other functional areas (Systems Management, Medical Logistics, etc.) in order to prepare plans; reviews all aspects (short/long term) to ensure smooth and successful integration with a minimum of operational disruption.
- B. Compiles measurements of appropriate factors and variables. Skillfully utilizes statistical process analysis to review projections, and to assess impact of proposed changes. Evaluates advantages/disadvantages. Reviews cover inpatient/outpatient clinical settings. Participates in preparation of business case analysis, utilization assessment, and cost analysis.
- C. Monitors plans and projections to ensure that actions taken improve total quality of care and patient accessibility; enhance productivity; decrease risk; and optimize resources.
- D. Prepares associated recurring and special reports, ensuring accuracy, soundness, and timely response.

KSA: 1,2,3,4,5,7

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DUTY .3: Serves as TRICARE Partnership Program Coordinator for Medical Services Flight. Critical.

STANDARDS:

- A. Reviews, evaluates, and makes recommendations for the implementation or cancellation of internal and external partnership programs. Collects and reviews associated metrics.
- B. Acts as liaison between the flight and the Hospital Command, Managed Care, TRICARE representatives, and partnership providers to implement or cancel a program, or to resolve problems with existing programs with regard to procedure room utilization, funding, support staff, etc. Advises Flight Chief of recommendations made and actions taken, and provides current information on existing programs.

KSA: 1,3,4,5

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DUTY 4: Serves as assistant manager of the Medical Residency Program.  
Non-Critical.

STANDARDS:

- A. Ensures full coordination of the residency program with the University of California, Davis (UCD), Department of Medicine. Ensures that all military residents and students are informed of all AF requirements and that obligations are met. Coordinates timely return of resident and staff evaluations. Ensures residency accreditation data is maintained current.
- B. Maintains liaison with all other flights and sections within the medical center and at UCD. Analyzes and proposes solutions to interdepartmental problems. Maintains currency of flight computerized budget data base.
- C. Helps ensure coordination with appropriate internal/external committees and commissions regarding residency training, graduate medical education, and military training. Helps coordinate Resident training activities.

KSA: 1,3,5

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DUTY 5: Serves as resource advisor for medical services matrix management; prepares annual flight budget; serves as Flight POC regarding supply and equipment matters. Critical.

STANDARDS:

- A. Tracks and monitors expenditures for medical and non-medical supplies and professional/residency training. Coordinates with element chiefs to evaluate needs, funding, and priorities.
- B. Prepares annual budget for Medical Services Flight. Coordinates closely with element chiefs, Flight Chief, and Resource Management (including Biometrics). Ensures accurate and timely budget submissions.
- C. Maintains close liaison with Resource Management and Medical Logistics to ensure current and accurate data, to provide effective coordination, and to serve as flight POC regarding resolution of supply and equipment problems for specific high-cost and high-risk medical specialties.
- D. Gathers statistical data to forecast, verify, and justify requirements. Prepares plans and associated documentation regarding financial, manpower, and equipment/supply requirements. Prepares equipment requests and information regarding special purchase requirements.
- E. Works closely with the Flight Chief. Advises on appropriateness of requests and justifications, coordinates plans and submissions, and keeps Chief informed of significant problems encountered; makes/coordinates recommendations for resolution.

KSA: 1,3,6

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DUTY 6: Performs manpower and productivity analyses. Performs other substantive medical/administrative reviews and analyses. Critical.

STANDARDS:

- A. Gathers productivity data/performance metrics and maintains currency of flight computerized data base for all related inpatient and outpatient activities to ensure that all workload is accurate and complete, lost workload is properly credited to the appropriate work center and projected workload is accurate and justified.
- B. Coordinates reapplication package with appropriate section chief and briefs Flight Chief prior to submitting finished product to Resource Management and higher headquarters.
- C. Maintains current Unit Manning Document (UMD) for the flight. Updates to ensure personnel are appropriately assigned against manpower number. Takes action to correct documentation and notifies element chiefs as required. Coordinates and verifies requirements versus funded authorizations through Resource Management.
- D. On the Flight Chief's request, prepares various administrative reports and/or business case analyses governing a variety of substantive medical/administrative issues. Researches, reviews and analyzes related policies, standards, procedures, and data. Performs statistical analyses and prepares associated charts and graphs. Advises and makes recommendations to the Flight Chief.
- E. Reviews administrative operations to ensure compliance with applicable directives, standards and policies. Keeps Flight Chief informed of changes in policies, regulations, or procedures. Analyzes administrative work methods and procedures; develops and implements methods and procedures to improve quality and efficiency. Represents Flight Chief on administrative/resource matters in his/her absence.

KSA: 1,3,4,6

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DUTY 7: Performs a variety of other administrative duties. Non-Critical.

STANDARDS:

- A. Serves as training monitor for the flight. Develops and maintains physician orientation training plans, and plans for MSC officers rotating through the flight. Monitors clerkship program. Analyzes needs, and coordinates and schedules training courses through the Medical Education Office. Evaluates training effectiveness and makes recommendations for changes in training courses or programs to optimize benefits for all.
- B. Maintains current and accurate rosters of personnel certified for Basic

CPR, Advanced Cardiac Life Support, Combat Casualty Care Course, Continuing Medical Readiness Training, Drug Enforcement Administration (DEA) registration, Child Care Services, state licensure status, and critical clinical procedure credentialing files for Staff and Residents.

C. Acts as System Security Officer, Internal Inspection Coordinator, Patient Advocate, Safety/Security Program Monitor.

KSA: 6

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#### RECRUITMENT KNOWLEDGES, SKILLS, AND ABILITIES

1. In-depth knowledge of healthcare delivery systems and concepts (mission, organization, programs, and requirements); related resources, affiliations, organizational relationships; hospital functions and operations.
2. In-depth knowledge of, and skill and ability to operate and coordinate, the Flight CHI program, to determine and apply appropriate analytical methods and techniques (including statistical processes and cost-benefit analysis), to conduct reviews and make recommendations. Knowledge of medical/surgical practices and terminology as pertains to CHI program.
3. Knowledge of 60 MDG mission, goals, structure, organization, and operations. Knowledge of regionalized care, TRICARE Support, resource sharing agreements, and interrelated programs, issues, and policies. Knowledge of applicable accreditation requirements and JCAHO/DoD/AF guidelines.
4. Knowledge of total quality management concepts, principles, and methods as applied in a health care environment. Ability to evaluate problems and provide or recommend timely and effective solutions.
5. Skill in oral and written communication. Ability to meet and deal with others.
6. Working knowledge of budget, resource advisor, and manpower processes and techniques. Familiarity with medical education/training functions and processes.
7. Knowledge of DoD medical information systems and associated programs is highly desirable. Skill with microcomputers, spreadsheets, graphics, word processing, relational data bases, mainframe interface, and LAN experience is desirable.
8. A BA/BS degree in health services/health care administration is highly desirable. Advanced academic study in health care administration or health care management is highly desirable.

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Factor 1, Knowledge Required

Level 1-7 (1250 Points)

- In-depth knowledge of healthcare delivery systems and concepts (mission, organization, programs, and requirements); related resources, affiliations, organizational relationships; hospital functions and operations.
- Knowledge of 60 MDG mission, goals, structure, organization, and operations.
- Knowledge of regionalized care, TRICARE Support, resource sharing agreements, and interrelated programs, issues, and policies. Knowledge of applicable accreditation requirements and JCAHO/DoD/AF guidelines.
- Skill and ability to operate and coordinate the Flight CHI/QI/QA/RM program, to determine and apply appropriate analytical methods and techniques (including statistical processes and cost-benefit analysis), to conduct

reviews and make recommendations. Knowledge of medical/surgical practices and terminology as pertains to CHI/OI/OA/RM functions.

- Knowledge of total quality management concepts, principles, and methods as applied in a health care environment. Ability to evaluate problems and provide or recommend timely and effective solutions.
- Ability to identify and evaluate issues and problems, derive findings, make assessments, formulate recommendations, and prepare reports.
- Ability to provide a high degree of specialized advisory, analytical, and administrative support and assistance to the Flight Chief.
- Skill in oral and written communication; ability to meet and deal with others.
- Working knowledge of resource management and manpower functions and processes. Familiarity with medical education/training processes.
- Working knowledge of Diagnosis Related Group (DRG), International Classification of Diseases (ICD-9), Physicians Current Procedural Terminology (CPT), and Ambulatory Patient Groups (APG); coding system interrelationships; and effect on financial aspects.
- Knowledge of DoD medical information systems and associated programs. Skill in using microcomputers and various applications/data bases, and familiarity with how programs interface.

#### **Factor 2. Supervisory Controls**

### **Level 2-4 ( 450 Points)**

This position reports to the Flight Chief. The supervisor provides overall policies, goals, and objectives. Specifics and deadlines as to assignments and projects are developed through discussion with the supervisor. From this basis the employee is expected to independently plan and coordinate work and exercise a high degree of initiative. Is expected to exercise sound judgment in the handling of assigned functions, and in dealing with administrative matters affecting the flight. Is expected to interpret regulations and guidelines, and provide a high level of advisory, analytical, and administrative services. Keeps the Flight Chief informed of potentially sensitive or controversial findings, issues, areas of concern, or problems that may have widespread impact. Completed work is reviewed for soundness, appropriateness of recommendations, effectiveness, and conformity to policies, directives, and requirements.

### **Factor 3. Guidelines**

### Level 3-3 ( 275 Points)

Guidelines include DoD and AF policies, directives and regulations; DGMC policies, guidelines and instructions; JCAHO regulations; references of the American College of Physicians, medical specialty boards, American Medical Association, residency review committees, and generally accepted medical administrative practices. References also include established analytical methods and techniques, as well as precedent studies. Guidelines may not be completely applicable to the work or have gaps in specificity. Incumbent uses judgment in selecting and interpreting references, precedents, and other studies for application to projects or problems.

#### **Factor 4, Complexity**

#### **Level 4-4 ( 225 Points)**

The work involves gathering information, identifying and analyzing issues and processes, and formulating results and recommendations. Requires the exercise of experience and sound judgment to analyze, review, and coordinate work

assignments involving a variety of administrative operations and functions across the flight. Measurements and analyses, particularly in the QI/QA/RM area, may be difficult and complicated by factors involving data collection, validity, completeness, correlation, interpretation, and substantive coordination with others.

#### **Factor 5, Scope and Effect**

### **Level 5-3 ( 150 Points)**

Analyses, recommendations, and work efforts affect all functional areas of the flight and serve to improve flight administrative efficiency, productivity and effectiveness. Work affects the preparation of local guidelines and instructions, and decisions made by others regarding achieving maximum use of resources. Some aspects of the work indirectly affect the delivery of health care and the quality of patient care.

#### **Factor 6, Personal Contacts**

**Level 6-2 ( 25 Points)**

Personal contacts include 60 MDG, AMC, HQ AF, and DoD personnel, as well as referral providers, contractors, and those in educational services at university level. The exact purpose of the contact may be unclear at first to one or more of the parties; and one or more of the parties may be uninformed concerning the role and authority of the other participants.

#### **Factor 7, Purpose of Contacts**

**Level 7-2 ( 50 Points)**

The purposes include: to acquire and evaluate information; to plan, coordinate, or advise on work efforts; to establish or promote new programs, methods or practices; or to resolve operating problems by influencing or motivating individuals or groups who are working toward mutual goals and who have basically cooperative attitudes.

#### Factor 8, Physical Demands

**Level 8-1 ( 5 Points)**

The work is sedentary. There may be some walking; standing; bending; carrying of light items such as papers, books, computer printouts. May involve visits to a variety of work centers within 60 MDG. Travel by auto to attend meetings may be required.

#### Factor 9, Work Environment

**Level 9-1 ( 5 Points)**

Work is performed in an office setting; normal safety precautions typical of offices, meeting and conference rooms are required. The work area is adequately lighted, heated, and ventilated.

Total Points: 2435

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**CLASSIFICATION STANDARDS USED:**

OPM PCS for Health System Specialist, GS-671 TS-38, 12/79

OPM PCS for Management and Program Analysis Series, GS-343 TS-98, 8/90

OPM PCS - Administrative Analysis Grade Evaluation Guide TS-98, 8/90

## WORKS CITED

Alcorn, Seth. 1990. Using matrix organization to manage health care delivery organizations. Hospital and Health Services Administration. 35(4): 575-90.

Alexander, JoAnn and Boyd E. Robinson. 1991. Positioning your nursing organization for product-line structure. Nursing Administration Quarterly. 15(2): 49-52.

Anderson, Howard J. 1991. Hospitals try new approaches to ambulatory care management. Hospitals. 65(13): 56-8.

Bowers, Michael R. And Jack A. Taylor. 1990. Product line management in Hospitals: An exploratory study of managing change. Hospital and Health Services Administration. 35(3): 365-375.

Carlton, Michael S. 1992. Development and evaluation of an organizational structure for managed care at David Grant USAF Medical Center. MHA Graduate Management Project, Baylor University.

Cassetta, Dorothy. 1987. Managing product lines. Texas Hospitals. 43(5): 19-20.

David Grant Medical Center Operating Instruction. 1994. Guidelines for use of resource sharing personnel.

Flynn, Mary K. 1991. Product-line management: Threat or opportunity for nursing? Nursing Administration Quarterly. 15(2): 21-32.

Fottler, Myron D. And Lionel J. Repasky. 1988. Attitudes of hospital executives toward product line management: A pilot survey. Health Care Management Review. 13(3): 15-22.

Headquarters U.S. Air Force Surgeon's Office. Objective Medical Group Implementation Guide. 1994.

Jones, Randell. 1993. Product linemanagement development and integration. Administrative Radiology. 12(5): 21-26.

Kerfoot, Karlene. 1993. The nurse manager and service-line management. Nursing Economics. 11(4): 246-248.

Kralovec, John O. III., Huttner, Carol A., and Mark D. Dixon. 1991. The application of total quality management concepts in a service-line cardiovascular program. Nursing Administration Quarterly. 15(2): 1-8.

MacStravic, Scott. 1986. Product-line administration in hospitals. Health Care Management Review. 11(2): 35-43.

McCormick, Daniel E. 1991. Using product line management to meet strategic objectives. Healthcare Financial Management. 45(10): 100-101.

Michael, Liane E. et. al. 1991. An introduction to product-line management. American-Speech-Language-Hearing Association. 33(1): 61-63.

Moye, Carol E. 1991. Product line management. Orthopaedic Nursing. 10(1): 56-61.

Nackel, John G., Fenaroli, Paul J., and George M.J. Kis. 1987. Product-line performance reporting: A key to cost management. Healthcare Financial Management. 41(11): 54-58.

O'Malley, Jim, Cummings, Susan, and Donna Serpico. 1991. Pragmatic strategies for product-line management. Nursing Administration Quarterly. 15(2): 9-15.

Pierog, Linda J. 1991. Case management: A product line. Nursing Administration Quarterly. 15(2): 16-20.

Plattenberg, Thomas M. 1988. The problem with product line marketing. Journal of Health Care Marketing. 8(3): 30-32.

Simpson, Roy L. 1994. Decision support systems for product-line management. Nursing Management. 22(5): 24-28.

Simpson, Roy L., and Karen Clayton. 1991. Automation: The key to successful product-line management. Nursing Administration Quarterly. 15(2): 33-38.

Studnicki, James. 1991. Measuring service line competitive position: A systematic methodology for hospitals. Health Progress. 72(6): 68-72.

Vaughn, Edgar D. 1990. Introducing product line management in a multi-institutional healthcare organization. Case Studies in Health Administration. 8: 81-88.

Vosburgh, Margaret M. 1991. Product-line management through organizational redesign. Nursing Administration Quarterly. 15(2): 39-48.

Weber, Ralph M. 1991. New product lines planning priorities. Health Care Strategic Management. 9(1): 4-6

Yano-Fong, Deborah. 1988. Advantages and disadvantages of product-line management. Nursing Management. 19(5): 27-31.